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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/759,508  
Filing Date: January 15, 2004  
Appellant(s): DECKER, DAYNA M.

**Steven P. Weihrouch**  
Reg. No.: 32,829

For Appellant

**EXAMINER'S ANSWER**

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This is in response to the appeal brief filed **04/23/2009** appealing from the Office action mailed **10/03/2008**.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

SE9903818	EBELING	05/2000
US6017373	FRISCH	01-2000
US 383822	MUNGER	05-1888
US 59839	HOARD	11-1866
US 123,917	LADD	02-1872
US 431,033	CHAPIN	07-1890
US 3,175,876	FREDERICKS	03-1965

Donnelly, W. "Firewood For Your Fireplace", 1974, Library Of Congress Catalogue No. 74-76012, Printed in United States of America

**9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

**Claims Rejected under 35 U.S.C. 103(a)**

Claims **158-160, 162-165, 167-168, 170-171, 173-180, 182-185, 187, 189-190, 193-202, 204-205, 209-211, 214-219 and 264** are rejected under 35 U.S.C. 103(a) as being unpatentable over **SE9903818 (Ebeling)** (English language translation provided) in view of **US006017373 (Frisch)** and **FIREWOOD FOR YOUR FIREPLACE** by Warren Donnelly (herein after referred to as **Donnelly**), and supported in part by **US000383822 (Munger)**), **US0059839** and **Ladd (US00197902)**.

**SE9903818 (Ebeling)** shows and discloses (see the attached English language translation) a candle including:

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- a body of meltable fuel; and
- a thin flat (figure 1) elongate wood or wood product wick (see the attached English language translation) disposed in the body and having an upper end extending above an upper surface of the body; and the body of the meltable fuel further comprises a gum or a resin, whereby when the wick is burned and consumes the meltable fuel;
- the upper end of the wick protruding from the candle substance; and
- the glue (10) receiving the thin flat wick forms, when solidified, a wick holder in a base of the body, the wick holder having an elongate slot in which a lower end of the wick is received.

The English language translation of the **SE9903818 (Ebeling)** discloses the following:

**“State of the art**

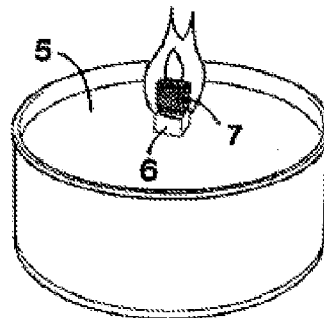
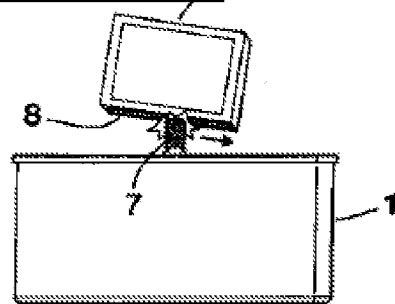
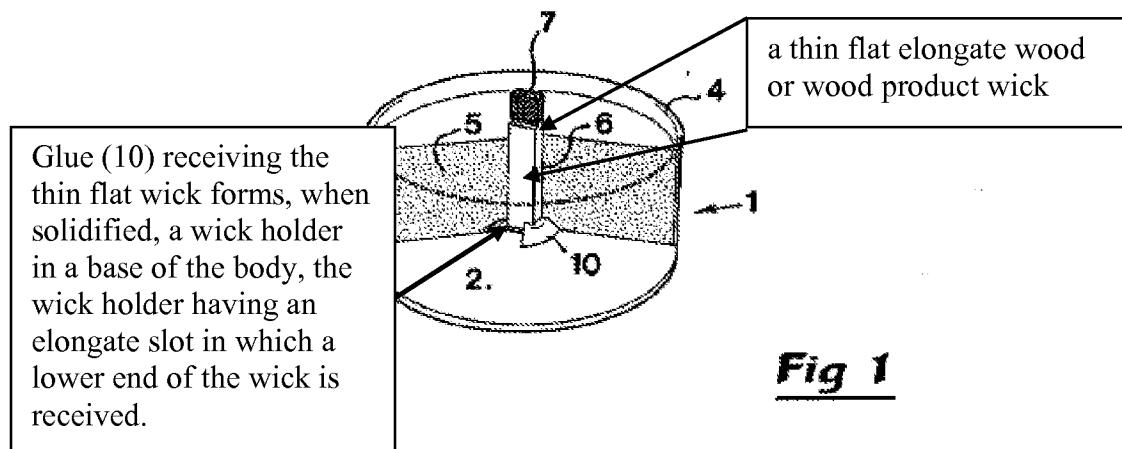
Outdoor candles of the conventional art are made, on the one hand, of some form of combustible candle substance that can be molded: for example, a candle material consisting of paraffin, stearin, and/or tallow; ...”

**“Detailed Description of a preferred embodiment of the invention**

In the drawing, Figure 1 shows a general view of cup or tin, which, in the usual manner, is comprised of a flat bottom 2 and a continuous cylindrical wall 3, which is open at the top, above its upper rim 4. A candle substance or other combustible substance 5 of a suitable composition has been poured into the cup. In the center of this substance 5, a wick 6 is anchored -- in accordance with present invention -- with the upper end of the wick protruding from the candle substance, and which has a head that can be ignited by scraping something against it 7. This ignitable head can be made of various materials (for example sulfur), which have the common characteristic that they can be ignited when an igniting body is scraped against the ignitable head. Figure 2 illustrates how a striking surface 8 of a conventional matchbox 9 can be used to light the ignitable head of the wick. ...

The actual wick 6 can advantageously be made of a material that retains its shape, for example some kind of wooden material, which is impregnated with a combustible material, after which the ignitable head 7 is applied to the top of the wick. The outdoor candle is made in the conventional way with the wick being placed in the center of the bottom of the cup 2 and fixed in that position, for example, by using a daub of glue 10 ...” (Highlighting and Underlining Added)

**SE9903818 (Ebeling)** shows and discloses the invention substantially as set forth in the claims with possible exception to apparatus creates pleasant crackling sounds.



US006017373 (Frisch) teaches, from applicant's same combustible flame producing field of endeavor, snapping and popping of burning wood arises from heating of moisture and sap which naturally exist in the log. US006017373 (Frisch) also teaches that it is known and desirable duplicate the sound of burning natural logs in artificial burning flame producing article or apparatus, for the purpose of providing an ascetically pleasing sound from the artificial article.

US006017373 (Frisch) teaches the following:

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(7) Typical prior art artificial logs burn much more quietly than natural logs and do not duplicate the roar of burning natural logs. Also, as discussed below, **natural logs exhibit loud snapping and popping**, the snapping and popping **arising from heating of moisture and sap which naturally exist in the log.**  
(Highlighting and Underlining Added)

**Donnelly** teaches from applicant's same the wood fire field of endeavor, that it is well known to select a given type of wood for the purpose of intentionally creating a "crackling fire" (see page 18, line 5) when burned, according to the preference of the person to, for example, create a "cheerful atmosphere, to attract friends for a cozy evening" (page 17, last line). **Donnelly** also teaches that "Almost any wood will pop and throw sparks" due to rupturing of wood cells resulting from "water in the wood being changed to steam as the wood is heated" and "from pitch, resin, and oils contained in the wood" (page 34, line 3- page 35, line 3). **Donnelly** further discloses and teaches that the degree that a given wood species produces "sparks", necessarily accompanied by a "loud pop" as wood cells rupture, is known (page 85, last full paragraph). In this regard **Donnelly** provides a "Table of Firewood" wherein "The different burning characteristics of each wood are listed so you should make your selection according to the type of fire you desire: ease of starting, high heat, fragrance, sparks, smoke, coaling qualities, etc." (pages 88-95).

In regard to claims **158-160, 162-165, 167-168, 170-171, 173-180, 182-185, 187, 189-190, 193-202, 204-205, 209-211, 214-219 and 264**, for at least the purpose of duplicating the ascetically pleasing audible snapping or popping sound of a natural wood fire, to create a "cheerful atmosphere", it would have been obvious to a person having ordinary skill in the art to form the wood wick material of **SE9903818 (Ebeling)** from a wood product known to produce a desired level of audible crackling, snapping or popping sounds such as due to a desired level of moisture therein (e.g. – from water, pitch, resin, oils, etc.), in view of the teaching of **US006017373 (Frisch)** and **Donnelly**.

In regard to claims such as **158-160, 162-165, 167-168, 170-171, 173-180, 182-185, 187, 189-190, 193-202, 204-205, 209-211, 214-219 and 264**, since the wood specie (e.g. – Cherry , poplar, fruit wood, hardwood), relative dimensions of the wick and fuel body, the wick size, number and shape of the wick(s), would necessarily depend on numerous interrelated design

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concerns such as a rate of burn, desired level or volume of audible sound or noise, a desired amount of light to be produced, particular fuel characteristics, the size and shape of a given candle article, etc. to form the wooden wick of the **SE9903818 (Ebeling)** candle in the manner set forth in the claims can be viewed as nothing more than merely a matter of choice in design absent the showing of any new or unexpected results produced therefrom over the prior art of record.

In regard to claims **171, 179, 201, 255 and 264**, for example, wood grain is known to be generally straight (**See US000383822 (Munger)**).

In regard to claims **167, 170, 189, 209 and 210**, for example, Official Notice is taken that it is well known to form burner wicks from a wood product of pressed wood particle/powder product or a high density fiberboard material (see **US0059839** and **Ladd (US00197902)**) and adhesive in the pressed wood and wherein the adhesive is an added resin, gum, or natural glue (see **US00431033**). As such, in view of that which is well known and for the known purpose, it would have been obvious to a person having ordinary skill in the art to form the candle in the manner set forth in the claims.

In regard to claims such as **165, 185, and 205**, for example, Official Notice is taken that it is well known to provide candle fuel, and therefore the embedded wick, with scented oil for the purpose of producing a desired fragrance (see **Fredricks (3,175,876)**). Furthermore, Official notice is taken that all woods include naturally occurring dyes producing a characteristic color of the wood, and oils which when burned necessarily produce a fragrance.

In regard to claims **176, 196, 217 and 238**, for example, the wood wick of **SE9903818 (Ebeling)** will necessarily be sealed or coated with wax, as it is located with a solidified body of wax type fuel.

In regard to claims such as **178, 198 and 219**, for example, since bleaching, dyeing and apply printed images to the wick do not affect the operational characteristic of the wick and amount to nothing more than merely an ascetic effect, these limitation can be given no patentable weight..

In regard to claims such as, **158-160, 162-165, 167-168, 170-171, 173-180, 182-185, 187, 189-190, 193-202, 204-205, 209-211, 214-219 and 264**, since the selection of the wood would



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necessarily depend on numerous design concerns such as a desired rate of burn, the desired amount or volume of audible noise (e.g. - crackling, snapping and popping) of the burning wood, etc., to select any one of Prunes Serotina, Hardwood, Softwood, Cherry, Poplar, Maple, Birch, Beech, Basswood, Aspen, Yellow, Buckeye, Oak, cellulose and lignin, Cedar, Spruce, Cypress, Pine, Pacific Yew, Silverbell, Witch Hazel, Tropical Wood, Rimo, Pillarwood, Wenge, Rosewood or Bamboo, etc. can be viewed as nothing more than merely a matter of choice in design absent the showing of any new or unexpected results produced therefrom over the prior art of record.

In regard to claims such as **160, 162, 164, 180, 182, 200** and **202**, for example, Official Notice is taken that it is known to make candle from meltable fuel(s) including petroleum (paraffin), mineral (montan), synthetic wax, clear candle waxes, or "gels", beeswax, carnauba, candelillia or vegetable-based wax, including stearic acids, UV inhibitors, polyethylene, scent oils, or color pigments, a vegetable-based wax including palm and soy, cotton, olive, linseed, castor, peanut and jojoba. As such in view of that which is well known and for the known purpose it would have been obvious to a person having ordinary skill in the art to form the candle in the manner set forth in the claims.

**Allowable Subject Matter**

Claim **241-262** allowed.

**(10) Response to Argument**

In response to applicant's arguments against the reference of Ebeling individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). That is, the combination of teachings available at the time of the invention and presented in the prior art references of SE9903818 (Ebeling) (English language translation provided), US006017373 (Frisch) and FIREWOOD FOR YOUR FIREPLACE by Warren Donnelly (herein after referred to as Donnelly) suggest the desirability of audible crackling noises in firewood.

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Regarding independent claim 159 and claim 264, Appellant argues at least that:

- Ebeling does, indeed, disclose an outdoor candle including a wick made of wooden material impregnated with a combustible material. *See* Ebeling, pages 4 to 5. However, it is undisputed that Ebeling does not disclose a candle including a poplar or cherry wick., and
- None of the cited references discloses a candle wick made of poplar or cherry.

In response to applicant's arguments against the reference of Ebeling individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. *See In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). That is, the combination of teachings available at the time of the invention and presented in the prior art references of SE9903818 (Ebeling) (English language translation provided), US006017373 (Frisch) and FIREWOOD FOR YOUR FIREPLACE by Warren Donnelly (herein after referred to as Donnelly) suggest the desirability of audible crackling noises in firewood.

**Donnelly** provides a “Table of Firewood” (see the table bridging pages 88 and 89) wherein “The different burning characteristics of each wood are listed so you should make your selection according to the type of fire you desire: ease of starting, high heat, fragrance, sparks, smoke, coaling qualities, etc.” In this Table, Donnelly indicates that cherry has an “Excellent” aroma, or fragrance, when burned. Furthermore, with regard to the burning characteristics of fruitwoods Donnelly discloses ( page 37) the following:

“For the best fragrance use the fruitwoods. Burning apple, wood will produce the aroma of an apple orchard in full bloom. Cherry, citrus, peach, pear, and plum will also produce an excellent fragrance when the wood is burned. The fruitwoods are also excellent firewoods in other characteristics such as heat value, coaling qualities, no smoke, etc.”

The examiner maintains therefore that for at least the purpose of adding an ascetically pleasing scent or fragrance to the burning wood wick, it would have been obvious to a person having ordinary skill in the art to select or form the wood wick material of **SE9903818 (Ebeling)** from a fruit wood product such as cherry wood, having characteristics known to produce a desired aroma, in view of the teaching of **Donnelly**.

Regarding independent claim 179 and claim 264, Appellant argues at least that:

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- None of the cited references discloses a wood candle wick having a moisture content of from 6 to 8 percent.

**Donnelly** provides a "Table of Firewood" (see the table bridging pages 88 and 89) wherein "The different burning characteristics of each wood are listed so you should make your selection according to the type of fire you desire: ease of starting, high heat, fragrance, sparks, smoke, coaling qualities, etc." In this Table, Donnelly indicates that cherry has an "Excellent" aroma, of fragrance, when burned.

With regard to the desired level of moisture present in wood to be burned Donnelly (see page 25) discloses the following:

"Well seasoned wood which is by far the most desirable was cut six months or a year ago. It has been stacked in the open so the air can circulate freely through the pile to remove most of the internal moisture. A standard of the industry specifies that well seasoned-air dry-wood contains 20 percent water or less." (Highlighting Added)

With regard to the sparking tendency of wood to be burned Donnelly (see page 34) discloses the following:

"Almost any wood will pop and throw sparks when it burns if it is not dry. This is due to water in the wood being changed into steam as the wood is heated. In many cases the steam becomes trapped in the wood cells so that it cannot escape. The steam gradually builds up to a pressure sufficient to rupture the wood cells with a loud pop and a shower of sparks.

Some woods are known for being spark throwers even when they are dry. These woods such as birch, chestnut, eucalyptus, balsam fir, larch, pine, poplar, and spruce will produce moderate to heavy sparks when burned in the seasoned, dry condition. Here again the spark showers are created by minor explosions of trapped gases within the wood. In these cases the gases are generated from pitch, resin, and oils contained in the wood and not from water." (Highlighting Added)

With regard to the desire to utilize the sparking tendency of wood to be burned Donnelly (see page 35) discloses the following:

"Some people prefer a fireplace fire that pops and crackles. Others are forced into this type of fire due to the lack of non-sparking wood in their area."

The examiner maintains therefore that for at least the purpose of creating an ascetically pleasing, audible snapping or popping sound of a natural wood fire, to create a "cheerful

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atmosphere", it would have been obvious to a person having ordinary skill in the art to form the wood wick material of **SE9903818 (Ebeling)** from a wood product having characteristics known to produce a desired level of, for example, audible crackling, snapping or popping sounds such as due to a desired level of moisture therein (e.g. – from water, pitch, resin, oils, etc.), in view of the teaching of **US006017373 (Frisch)** and **Donnelly**. And, in particular, with regard to the claimed "moisture content of from 6 to 8 percent", the examiner further maintains that for at least the purpose of creating a desired level or degree of an ascetically pleasing audible snapping or popping sound of a natural wood fire, to create a "cheerful atmosphere", it would have been obvious to a person having ordinary skill in the art to form the wood wick material of **SE9903818 (Ebeling)** from a wood product known to produce an audible crackling, snapping or popping sounds, such as due to a selected level or degree of moisture therein, in view of the teaching of **Donnelly**.

Regarding independent claim 199 and claim 264, Appellant argues at least that the prior art of record fails to show or teach "a wood candle wick having a thickness of from 0.023 to 0.028 inches."

With regard to the wood candle wick having a thickness of from 0.023 to 0.028 inches, the examiner maintains that, since the relative dimensions of the wick and fuel body, the wick size, number and shape of the wick(s), would necessarily depend on numerous interrelated design concerns such as a rate of burn, a desired amount of light to be produced, particular fuel characteristics, the size and shape of a given candle article, etc. to form the wooden wick of the **SE9903818 (Ebeling)** candle in the manner set forth in the claims can be viewed as nothing more than merely a matter of choice in design absent the showing of any new or unexpected results produced therefrom over the prior art of record.

Appellant's presents remarks directed to the examiner's finding the Declaration under 37 CFR **1.132** filed on 09/08/2008 is insufficient to overcome the rejection of claims 158-160, 162-165, 167-168, 170-171, 173-180, 182-185, 187, 189-190, 193- 202, 204-205, 209-211, 214-219, 241-262 and 264 based upon 35 U.S.C. 103(a) as being unpatentable over **SE9903818 (Ebeling)** (English language translation provided) in view of **US006017373 (Frisch)** and **FIREWOOD FOR YOUR FIREPLACE** by Warren Donnelly (herein after referred to as **Donnelly**), and supported in part by **US000383822 (Munger)**, **US0059839** and **Ladd (US00197902)**. In this

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regard the following remarks made by the examiner, in the office letter mailed on 10/03/2008, are now restated here below:

Beginning in paragraph 4 Declarant presents for review by the examiner TABLES A-P which include information for wicks prepared from various woods having various properties and dimensions. Declarant also indicates that each wick of TABLES A-P as well as a body of meltable fuel including paraffin and 10% fragrance was prepared in a glass jar having a diameter of 3 inches. Declarant states that each wick of TABLES A-P was oriented in a respective glass so that the wick extended 0.125 to 0.375 inches above the top surface of the body of meltable fuel. And, Declarant notes that the resulting candles were observed, while burning for up to 6 hours.

In the last paragraph (paragraph 5), without providing specific evidence or criteria for arriving at the conclusions arrived at Declarant makes only the following statements in support of non-obviousness of the invention over the prior art of record:

"5. As is evident from the observations in TABLES A-P above, candles including wicks formed from poplar or cherry, as in claim 159 of the above-captioned patent application, candles including wicks formed from wood having substantially straight grains aligned substantially in the height dimension and a moisture content of from 6 to 8 percent, as in claim 179, and candles including wicks having thicknesses of from 0.023 to 0.028 inches, as in claim 199, provide unexpected, superior burning properties (Good Flame, Good Crackling Sound) relative to candles including wicks that do not possess such features. These results are objective evidence of the improvements of the candles or candle apparatus of claims 159, 179 and 199 over candles as in SE 9903818 to Ebeling ("Ebeling") (cited in the outstanding Office Action in the above-captioned patent application) and thus these results rebut any suggestion that it would have been obvious to modify the candles of Ebeling in view of the teachings of the other cited references."

Declarant's conclusions presented in paragraph 5 of the Declaration are not found to be persuasive, since Declarant provides no analysis or specific factual basis for the conclusions rendered. Declarant merely states that "As is evident from the observations in TABLES A-P ..." without pointing to specific and meaningful data and/or observations and without presenting a critical analysis of information and/or observations so as to support Declarant's conclusions. That is, Declarant provides no explanation for supporting such findings.

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Declarant's conclusion, presented in paragraph 5, that the information presented in TABLES A-P provides unexpected, superior burning properties (Good Flame, Good Crackling Sound) is not commensurate with the scope of the claimed invention since no claims contain limitations which address flame properties or crackling sounds.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Carl D. Price/

Primary Examiner, Art Unit 3749

Conferees:

/Steven McAllister/

Supervisory Patent Examiner, Art Unit 3749

/Thomas C. Barrett/

Supervisory Patent Examiner, Art Unit 3775